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### SUMMARIES OF ARTICLES IN "LUES"

THE BULLETIN OF THE JAPANESE SOCIETY OF SYPHILOGRAPHY, DERMATOLOGICAL INSTITUTE, IMPERIAL UNIVERSITY OF KYOTO, 1935, VOL. 12, NOS. 2 (APRIL) AND 3 (JUNE)

*Super- and re-infection in rabbit syphilis (III). On the spirochetal content of the blood in rabbits intravenously infected with syphilis* (April No., Summaries, p. 5). *IV. Intracutaneous super-infection after intravenous primary infection* (June No., Summaries, p. 11). By K. SCHIME. Dermatological Clinic of the Imperial University of Kyoto (Prof. Dr. Matsumoto).

IN his communication IV. the author reports the following experiments: Syphilitic rabbits were treated with sodium salvarsan on the thirty-fifth, fifty-second and seventy-seventh day after intratesticular inoculation, and twenty-one days later were re-infected intravenously with a large quantity of *S. pallida*. Thirty-five days later the heart blood was tested for the presence of spirochetes by means of animal inoculations. The results were negative. In his fifth communication Schime reports the results of experiments on super-infect rabbits that in the first instance had been infected by intravenous injection of 5.0 c.c. of an emulsion of syphilitic testicle. The rabbits were divided into four groups, and ten days, two weeks, three weeks and four weeks respectively after the primary infection the different groups were inoculated intracutaneously with a syphilitic emulsion. The results are presented in a table which shows that the metastatic lesions occurred later in the animals super-infected shortly (ten days) after the primary intravenous infection than in those super-infected later. The metastatic lesions were more pronounced in those super-infected shortly (ten days and two weeks) after the primary infection, as also in those (controls) infected by simultaneous intravenous and intracutaneous inoculation, than in those super-infected later.

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*Staining of Spirocheta pallida in Frozen Sections.* By K. ONO. Institute for Chemical Research and Dermatological Clinic, University of Kyoto (Prof. Dr. Matsumoto). (April No., p. 5.)

The author recommends the following method of staining *S. pallida* in frozen sections: (1) The tissue is fixed for thirty minutes to twenty-four hours with 10 per cent. formalin, washed with tap-water, frozen and cut. (2) The frozen section is laid on a slide and dried at room temperature, so that it becomes stuck to the slide. (3) The section is again treated for fifteen minutes with 10 per cent. formalin, well washed with water and then immediately treated with 1 per cent. soda bicarb. solution for fifteen minutes, after which it is again washed. (4) It is then stained for five to fifteen minutes with 0.2 to 0.5 per cent. of one of the following dyes:—

Crystall Violett (G)—Crystal Violet Crystals (WTM)—Crystal Violet C Crystals (L)—Crystal Violet P (By)—Dahlia (G)—Extra Violet—Gentiana Violett (G)—Methyl Violett B (G)—Marine Blue (WTM)—Marine Blue BI conc. (M)—Marine Blue BNX (BA)—Marine Blue D conc. (A)—Marine Blue RNX (BA)—Methyl Violet BO (Gr)—Methyl Violet BB extra (BA)—Methyl Violet B Peacocks (BA)—Methyl Violet non plus ultra (A)—Methyl Violet R extra HC (BA)—Soluble Violet extra (BA)—Superior Violet conc. milted (BA)—Tanting Blue RE conc. (BA)—Victoria pure Blue BO (BA)—Violet NPU (BA)—Violet 10562 (By)—Victoria Blue RB (B).

*The Effect of Hg-Organosol inunctions in cutaneous experimental syphilis of rabbits (III.)* By HOJI KO, Dermatological Clinic of the University of Kyoto (Prof. Dr. Matsumoto). (April No., p. 7.)

A. Two rabbits were infected by intravenous injection of 4.0 c.c. of a suspension of *S. pallida*, and thirty-five days later were treated by inunction with 33 per cent. mercurial ointment applied to the back, where there were already generalised papules. A certain number of days after the end of the fifth "Tour" (in one case seventeen days, in the other thirty-nine) an emulsion of spleen and inguinal gland from each animal was inoculated into a normal rabbit. The result was positive in one case and negative

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in the other. The mercury-treated rabbits showed no sign even 150 days later. The inunctions caused some general disturbance which gradually disappeared. On the other hand, irritation of the skin produced by the inunctions was quite definite. Five courses ("Touren") were evidently insufficient for cure. *B.* Corresponding inunction with 22 per cent. "Hg-Organosol" ointment in two rabbits. The generalised papules had already almost completely disappeared by the tenth day, and 144 to 155 days after removal of the organs there was no symptom; inoculation with organ emulsion [presumably as in *A*] seventeen and twenty-nine days after the end of the course gave negative results. In this course the rabbits also suffered from some general disturbance which gradually disappeared. The irritation of the skin with this ointment was much less than with the preceding one.

*C.* and *D.* report similar experiments with syphilitic papules obtained by intracutaneous inoculation of the backs of rabbits and treated in one set (*C.*) with 33 per cent. mercurial ointment, and in the other (*D.*) with Organosol ointment. The result seemed to show the superiority of the Organosol.

*A case of scrotal carcinoma, which showed the clinical appearances of a gummatous ulcer.* By HICHIVO URABE, Dermatological Clinic of the University of Kyoto. (April No., Summaries, p. 8.)

Comparatively frequently one finds in European literature reports on carcinoma of the scrotum occurring as an occupational disease in chimney-sweeps, tar, paraffin and aniline workers, through the long-continued irritation of the skin produced by the occupation. In 1779 Pott described the first scrotal cancer occurring in a chimney-sweep, and after this a number of cases were recorded in England. In the literature one finds also many cases of this disease which are not due to the occupation. In Japan the following is the first case to be reported. The patient was a fifty-six-year-old ship's captain, first seen on April 14th, 1931. About twenty-five years previously the patient had had gonorrhœa and a chancre. In April, 1929, the patient noted a small knot-like swelling of the skin about the size of a small pea on the

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right side of the scrotum close to the perineum. This swelling increased in spite of energetic treatment, and showed at its summit a quite definite ulcer which gradually increased. At the time the patient was seen by the author the state was as follows: Scrotum generally a little swollen and more or less hyperæmic, but not sensitive to pressure. On the skin of the lower pole of the right half of the scrotum, near the perineum, was a sharply defined, kidney-shaped ulcer about 2.5 cm. in diameter with an infiltrated, not undermined margin. Inguinal glands not swollen. As the appearance of the ulcer was gummatous it was treated with anti-syphilitic remedies, but without benefit. Accordingly a section was examined and proved to be a squamous-celled epithelioma. The ulcer was excised. About seventeen days after leaving hospital three swollen right inguinal glands were noted. They were enucleated, and proved to be cancerous.

*Salvarsan treatment in rabbit syphilis (I.)*. By HOJI KO, University Dermatological Clinic, Kyoto. (June No., Summaries, p. 13.)

Three series of rabbits, *A*, *B*, and *C*, were inoculated intracutaneously each in three sites on the back with an emulsion of *S. pallida* (Orchitis).

At various times sodium salvarsan was given in doses of 0.03 grm. per kgm. as follows: *Series A*, three doses at three-day intervals to two rabbits—the first, twelve days after the inoculation; and three doses at one-day intervals to two rabbits—the first, thirty-one days after the inoculation. *Series B*, six rabbits injected with two doses at one day's interval, the first being on the day before the inoculation in two cases, five days after the inoculation in two, and twelve days after it in two. *Series C*, one dose to each of eight rabbits: in two the day before the inoculation; in two each, five, twelve and thirty-one days respectively after it.

The results, as judged by later development of signs and/or cross inoculations, showed apparent cure in *Series A*, in all of *Series B* except one of the animals injected twelve days after inoculation, and in none of *Series C*.

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*A case of acute ulcer of the vulva with aphthous changes in the buccal mucous membrane and acute iritis.*

By M. NISHIMURA. Dermatological Department of the State Hospital, Nagoya (Director, Dr. I. Asai). (June No., Summaries, p. 17.)

In the author's case a schoolgirl, aged sixteen, suddenly developed fever and general malaise, which was followed a day later by itching and burning of the labia, and three days later painful ulceration of both labia minora. On examination a week later the labia minora were swollen and reddened, and on the inner side of the left one was a painful ulcer the size of the tip of an index finger. The ulcer was oval, with slightly undermined edges and uneven base with a dirty grey-white purulent covering. On the left side was a similar ulcer which was rather smaller, and besides these on the mucous surface of both labia and the vestibule were a large number of smaller ulcers, varying in size from a millet seed to a pin-head. The hymen was intact and neither spirochetes nor Ducrey's bacilli were seen in the secretion. Culture grew only staphylococci. In the mouth the tonsils on both sides were swollen to the size of a little finger tip. On the gums of the left side of the upper jaw were numerous opaque, isolated, aphthous ulcers, from a millet seed to a pin-head in size and covered with an adherent yellowish white membrane. On the front of the uvula were three similar lesions. Microscopical examination of the genital and the mouth ulcers showed Gram-positive bacilli identical with the *B. crassus* of Lipschütz.

Twenty-six days after commencement of the trouble the patient developed iritis in the left eye, which was regarded as a metastasis and proof that the bacteria could invade the body through the blood stream.

*A contribution to the question of the relation between Syphilis and Trauma (Excision scar and syphilitic infection).* By K. ONO and S. ISHIDA. Dermatological Clinic, University of Kyoto (Prof. Dr. Matsumoto). (June No., Summaries, p. 15.)

The authors refer to previous clinical and experimental work, showing the tendency of syphilitic lesions to develop in sites that have been injured. They have

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repeated the experiments of Chesney, which showed that after intravenous inoculation with *S. pallida* these organisms settled particularly in the scars following wounds previously produced in the back.

In each of four rabbits they produced on the right side of the back three wounds each about 1·2 cm. in diameter, designated A, B, and C, respectively, from the head towards the tail, and on the left side three similar wounds, A<sup>1</sup>, B<sup>1</sup>, and C<sup>1</sup> (in order) from tail towards head, wounds A and A<sup>1</sup> being made first, B and B<sup>1</sup> a week later, and C and C<sup>1</sup> a week after that. Three weeks after production of C and C<sup>1</sup> all four animals were inoculated intravenously with 5·0 c.c. of an emulsion of *S. pallida*. In all four animals papules developed in all scars, and they were most pronounced in the freshest ones, C and C<sup>1</sup>. The experiments thus confirm those of Chesney in showing the importance of trauma in determining the sites of syphilitic lesions.

L. W. HARRISON.

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- (1) ANNUAL REPORT OF THE CITY AND ROYAL BURGH OF EDINBURGH V.D. SCHEME. BY DR. R. C. L. BATCHELOR, ACTING CLINICAL MEDICAL OFFICER.
  - (2) ANNUAL REPORT ON THE V.D. SCHEME OF THE CITY OF SALFORD. BY DR. E. TYTLER BURKE.

THESE two reports are for the year 1934, and their simultaneous arrival enables interesting comparisons to be made between two of the best-known venereal diseases schemes outside London.

The first point to strike the reader is that the Edinburgh report deals with the whole of the venereal diseases work administered by the Corporation, inasmuch as the Venereal Diseases Officer controls not only the Venereal Diseases Clinic at the Royal Infirmary, but also the venereal diseases treatment at the Hospital for Women and Children and its subsidiary centres, that done at the Royal Maternity Hospital and the Seamen's Dispensary, Leith, and the care of venereal diseases in-patients in the Municipal Hospitals. The Edinburgh report also devotes a section to ophthalmia neonatorum; and, presumably, therefore, the venereal diseases aspects of these